

Integration of Artificial Intelligence and Media Students: A Study on Kolkata Based Bachelor’s Degree Media Students

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Abstract - This study explores the integration of artificial intelligence (AI) in journalism and mass communication education among students studying in Kolkata-based colleges under the University of Calcutta. Media education in West Bengal has a rich history, yet it faces challenges in keeping pace with technological advancements. A survey of 100 journalism students of Kolkata based Govt aided colleges was conducted by the researcher which reveals high levels of AI tool usage. While students report high satisfaction with AI-generated content, concerns about accuracy, ethical implications, bias, and data privacy also persist. The study also highlights a significant digital divide, affecting the accessibility and equitable use of AI tools. It underscores the need for comprehensive media literacy education to critically evaluate and responsibly use AI in journalism. Aligning journalism education with the National Education Policy (NEP) 2020 and incorporating AI into the curriculum are essential for preparing students for a rapidly evolving digital landscape. Addressing these challenges can empower the next generation of journalists in West Bengal, ensuring a more informed and equitable media future.

Keywords: *Artificial Intelligence, Media Education, National Education Policy*

1. INTRODUCTION

Media education is a multidisciplinary field encompassing the study, analysis, and production of media in various forms. It aims to equip individuals with the skills, knowledge, and critical thinking abilities to understand, create, and interact with media effectively and responsibly. Media education covers a broad range of media types, including traditional media (such as newspapers, radio, and television) and digital media (such as social media, websites, and digital content). Media tools and technologies become integral part of every day’s life. Thus, in an increasingly media-saturated environment, media education has become essential in equipping individuals with the skills and knowledge to navigate and thrive.

Over the last 100 years, media education has been the subject of extensive discourse in India as an academic discipline. Media education has grown enormously in recent decades since its beginning in 1920 when National University of Adyar, Madras, under the Theosophical Society's sponsorship was founded by Dr. Anie Besant. With the fast development of technology, although this growth is not enough. Media is such a multidisciplinary, technology-driven sector that requires ongoing planning, specialized training, and curriculum enhancements through constant and appropriate monitoring.

According to the history of journalism and media education, Dr. Anie Besant is credited for starting the first journalism programme at the National University of Adyar, Madras, in 1920, under the Theosophical Society's sponsorship. In the beginning, students received a bachelor's degree from the English department of the Faculty of Arts together with additional practical training in the "New India" office, where Dr. Besant focused particularly on professional journalism. It didn't last long, though. The journalism course was made available as a certificate course at Aligarh Muslim University in 1938, almost ten years later. The first journalism department was founded in 1941 at Punjab University in Lahore by Professor P. P. Singh, the pioneer of formal journalism education in India. Singh studied journalism at the University of Missouri in Columbia, USA. One of the earliest journalism programmes in Asia was established in 1947 at the University of Madras in the southern part of independent India. This department focused on Journalism and Communication. The Department of Journalism and Mass Communication in the University of Calcutta was founded in 1948, nearly the same year as Madras. Approximately 900 colleges and institutes across the nation currently provide mass communication and journalism programmes at various levels. The majority of these institutions are located in Delhi NCR, with approximately 150 of them, followed by the cities of Bengaluru and Kolkata as well as the state of Maharashtra (Dutta, 2020)

2020 marks a significant milestone in Indian education system with the introduction of National Education Policy, a comprehensive framework to guide the development of education in India, approved by the Indian government in July 2020, replacing the previous National Policy on Education from 1986. Enhancing the use of technology in all facets of education is an important goal of NEP 2020 among many. The National Education Policy (NEP) 2020 of India emphasizes the integration of technology, including artificial intelligence (AI), to improve the quality of education at all levels. Applications of AI, such as DreamBox, IBM Watson Education, and Knewton, are supposed to aid in the development of learning resources and the improvement of teachers' educational skills (Parida, 2024). Additionally, AI-powered tools are believed to improve teacher's professional development. Virtual assistants and AI-driven platforms can provide insights into teaching methodologies, make recommendations for improvements, and give educators access to resources that keep them up to date on the most recent pedagogical practices. Data analysis is a critical component of improving education, and AI, such as CenturyTech and EduDataMinds, can assist in the analysis of large amounts of educational data in many areas.

In order to stay up with the ambitious provisions of NEP-2020, journalism and mass communication education should also be oriented in a way that both meets the challenge of putting the plan's lofty goals into practice and makes it easier to reorganise India's educational system. Emulating the Learning Environment of Education 4.0. it's time for media education, also, to adapt and become future-ready. This has to do with matching the demands of a networked society and the immersive virtual reality (VR) and augmented reality (AR) (Malik, 2020).

The last few years have seen a particularly noticeable transformation in the media and entertainment industry due to the growing popularity of media entertainment for prolonged amounts of time spent at home. This is due to artificial intelligence (AI). Artificial Intelligence (AI) is transforming journalism, enhancing the ways in which news is produced, distributed, and consumed. Several instances show that productivity and efficiency have been made in the sector, such as data analysis tools in news production, automated transcription, and dynamic paywalls. Not only the field of journalism, AI is changing how the entire creative processes are carried out in the film, video, and game industries too. Public Relations and Advertising too is taking help of AI vehemently. This paper will seek to attempt the use of AI within the current Honours

students of Journalism and Mass Communication to understand how student community is integrating AI with their regular studies.

To meet the objective, the paper has been structured in the following manner. The section 2 of the paper deals with pertinent literature reviews. Section 3 states the research methodology used for this study while section 4 vividly discusses analysis of the survey with a concrete finding. Section 5 ends with conclusion of the study followed by future scope of the paper.

2. REVIEW OF LITERATURE

From modest beginnings, the field of artificial intelligence (AI) has grown to have a worldwide influence. AI's definition and what constitutes appropriate and inappropriate inclusion in the definition have evolved throughout time (Bartneck et al., 2020). The branch of computer science known as artificial intelligence (AI) develops machines that can simulate human behaviour in order to help people perform better in the fields of science and technology. The few explicit objectives of artificial intelligence are to mimic human intelligence, solve knowledge-intensive tasks, construct computers that can carry out jobs requiring human intelligence, and create some sort of self-learning system (Ghosh & Thirugnanam, 2021)

Like every field, education sector has also embraced AI. Artificial intelligence (AI) in education is the application of AI technologies, like natural language processing and machine learning, to improve the educational process. Through the use of algorithms, teachers are able to personalise learning for each student by analysing data, finding trends, and making predictions. The application of AI in education has a lot of potential advantages. One of the biggest benefits of AI in education is personalised learning, which allows students to learn at their own pace and in a way that best fits their learning preferences. This can improve student outcomes. Chatbots, automated grading and evaluation, and intelligent tutoring systems can boost productivity, free up teachers' time, and deliver more precise and consistent feedback (Harry, 2023).

AI has encroached in the sector of media education too. A scientific work titled *The Importance of Artificial Intelligence in Modern Media Education Technologies in Institutions of Higher Education* highlights the significance of artificial intelligence (AI) in modern media education technologies. It emphasizes the unique opportunities AI offers to students and educators in Uzbekistan. A key application of AI is the personalization of the educational process, where learning materials are adapted to meet the individual needs of each student. This approach enhances the effectiveness of material comprehension and boosts academic performance, making AI a valuable tool in the realm of media education. The study also underscores AI's potential to revolutionize educational practices by providing tailored learning experiences (Samigova, 2023).

Most of the existent literatures highlights that AI presents both potential and difficulties for education sector. AI technologies have the potential to enhance instructional efficiency, streamline administrative duties, and support students by providing them with individualised, needs-based learning experiences. However, the proliferation of AI-powered learning materials prompts questions around algorithmic bias and data privacy. These ethical considerations should be managed by educational institutions to ensure that AI technologies are applied responsibly and equitably. The article also mentioned that incorporating media literacy instruction into school curricula is crucial for equipping pupils with the critical thinking skills necessary to evaluate AI-generated content and navigate the digital world with greater awareness (Batista & Batista, 2024).

In another study, to find out what they think about artificial intelligence in higher education, Best Colleges polled 1,000 current undergraduate and graduate students. As a result, 56% of college students reported using artificial intelligence (AI) for their homework or tests (Nam, 2023). In another study, a survey was conducted among 4800 ETH Zurich students in September 2023. It reveals diverse attitudes and usage patterns regarding AI in education. Most students favour AI integration, particularly tools provided by the university based on reliable materials. Students use AI primarily for language tasks, summarizing papers, and programming assistance. Despite recognizing the benefits of AI in personalizing education and enhancing learning experiences, students' express concerns about accuracy, reliability, and bias. Familiarity with AI tools also vary, with moderate knowledge of chat and translation tools but less experience with image or presentation tools. This article also finds that acceptance of AI differs across academic disciplines and genders (*AI Usage Among Students*, n.d.)

Another paper titled *Enhancing Student Engagement Through Artificial Intelligence (AI): Understanding the Basics, Opportunities, and Challenges*, examines the transformative potential of artificial intelligence (AI) technologies and chatbots in reshaping higher education. As AI becomes increasingly integrated into educational settings, it is crucial for stakeholders to understand both the foundational aspects of these technologies and their specific applications within higher education. The paper provides an overview of AI concepts and their relevance to enhancing student engagement, synthesizing the opportunities that AI and chatbots present for creating more interactive and personalized learning experiences. Additionally, the paper addresses the concerns and challenges associated with AI integration, such as ethical considerations, data privacy, and the potential for AI to reinforce existing inequalities. By exploring these issues through a global lens, with perspectives from countries including Australia, the United Kingdom, Vietnam, Cyprus, and GCC nations, the paper highlights the varied contexts in which AI is being adopted and the unique challenges faced by each region (Nguyen et al., 2024).

Despite extensive studies on AI integration in classroom settings among media students in various foreign countries, there is a notable research gap concerning its application in India, particularly in Bengal. Specifically, there is a lack of empirical research on how AI can be utilized in journalism and mass communication programs within this region. Understanding the unique educational context and challenges in Bengal could provide valuable insights and pave the way for effective AI-driven pedagogical strategies tailored to local needs. Addressing this gap is crucial for enhancing media education and preparing students for a rapidly evolving digital landscape.

3.METHODOLOGY

The research approach for this study would be exploratory in nature. Since AI integration in journalism education is a relatively new area, the research will begin by exploring current practices, challenges, and perceptions. The aim is to gain a broad understanding of how AI is currently being used and perceived in journalism education.

This study employs a survey methodology to investigate the integration of AI in journalism and mass communication education among students in Kolkata-based Govt aided colleges mostly under University of Calcutta. The sample consists of 100 students enrolled in journalism and mass communication undergraduate programs (both old CBCS 2nd and 3rd year and NEP 1st year batches). The questionnaire is posted in different college WhatsApp groups. The research design is purposive as it is only posted to

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graduate students of Kolkata based colleges which is the sample of the researcher and snowball technique is used to ensure a representative sample of the student population.

Data Collection

Data were collected using a structured questionnaire through Google Form designed to assess students' familiarity with AI tools, their frequency and attitude towards AI integration in education, and their experiences and concerns with AI in classroom settings. The questionnaire included both closed-ended and open-ended questions to capture quantitative data and qualitative insights.

4.RESULTS & ANALYSIS

After the data collection, data has imported to Excel file to analyse and charts are made to clearly understand the queries.

Demographics

Age Distribution of Respondents

The dataset comprises responses from 100 students aged 18 to 25, all studying Journalism and Mass Communication Hons in different Govt aided colleges in Kolkata. Most respondents are clustered around the ages of 21 and 22, with fewer respondents at the extremes of the age range. This indicates that the survey primarily targets young adults, likely college/ university students.

The gender distribution shows a balanced mix of male and female respondents. The exact numbers are slightly more females than males, indicating a diverse representation in the dataset.

Both these questions are not mandatory to answer.

Frequency of AI Tool Usage for Studies

The respondents reported varying frequencies of using AI tools for their studies. Most respondents use AI tools daily (66%), indicating a high level of integration of AI tools in their academic routines. A smaller portion of respondents use AI tools occasionally or rarely.

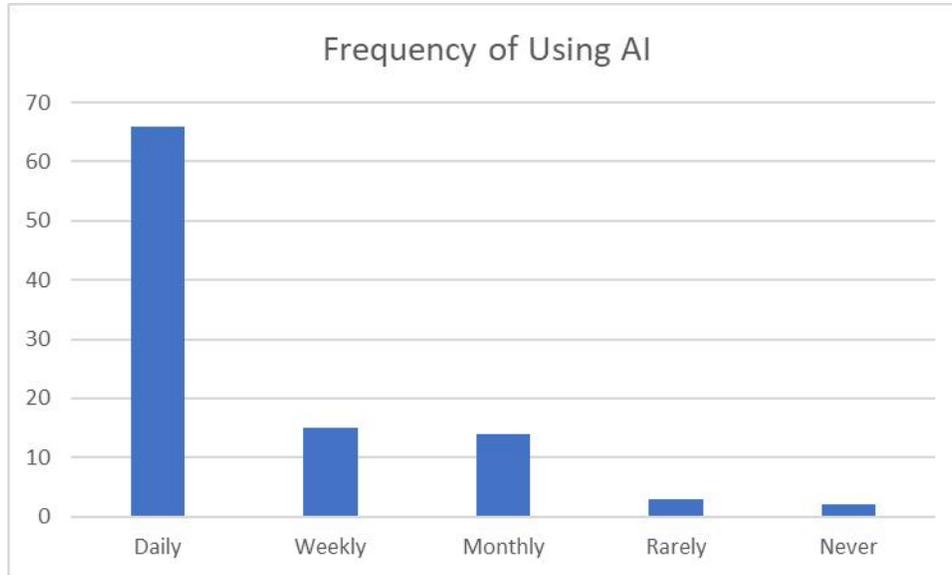


Chart 1: Frequency of Using AI

Most Frequently Used AI Tools

The questionnaire gave option

1. Grammarly: Widely used for grammar and style improvements.
2. ChatGPT: Popular for generating ideas, summarizing content, and writing assistance.
3. Jasper AI: Utilized for content generation and research purposes.
4. Quill Bot: Employed for paraphrasing and content enhancement.
5. Copy.ai: Used occasionally for writing assistance and content creation.

Respondents listed ChatGPT (75%) and Grammarly (68%) as two AI tools they use most frequently. For research, completing assignments or writing various project reports students are taking help of ChatGPT to generate ideas, and Grammarly to get help in writing and correcting grammar. Quill Bot (56%) is the second most used AI tool to improve their content and enhance their writing skill. A very few students also use Black Box, Chat pdf, Gemini (10%) etc for their regular studies.

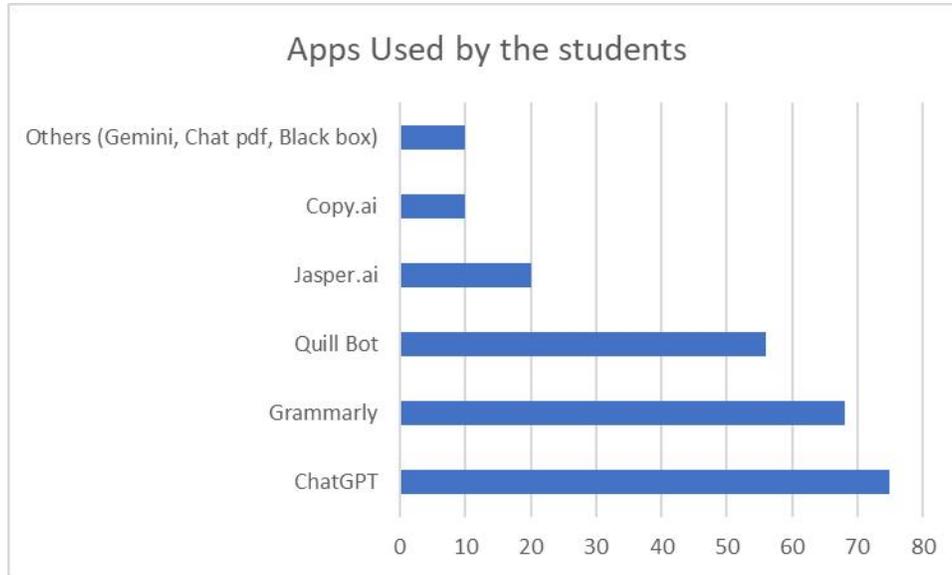


Chart 2: Apps used by the students

Primary Purposes of Using AI Tools

The primary purposes for using AI tools mentioned in the questionnaire are writing and editing, research assistance, data analysis etc. Writing and editing (82%) are the most frequently mentioned purposes, indicating that students find AI tools particularly useful for improving their written work. Grammar check, paraphrasing certainly comes into it. AI as Research assistance (65%) also comes to help to them while searching on different topics or preparing their dissertation project in the final year. Fact checking (57%) is also important followed by writing and editing and research assistance. Data analysis (20%) is also needed to complete their dissertation work which a few students take help of AI tools. Plagiarism (10%) comes as the least mentioned purpose.

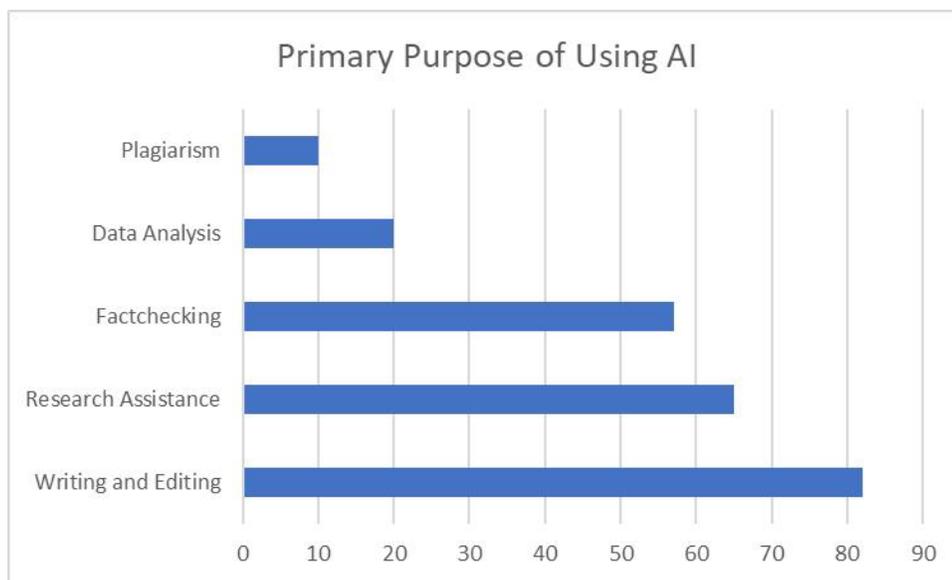


Chart 3: Primary Purpose of Using AI

Satisfaction with AI-Generated Content

Respondents generally reported high satisfaction with the quality of AI-generated content. Most respondents are either satisfied or very satisfied, with a few expressing neutrality or dissatisfaction. This suggests that AI tools are meeting the expectations of most students. Some students are of the opinion that they generally do not take help of AI in their studies, who have generally chosen the option neutral.

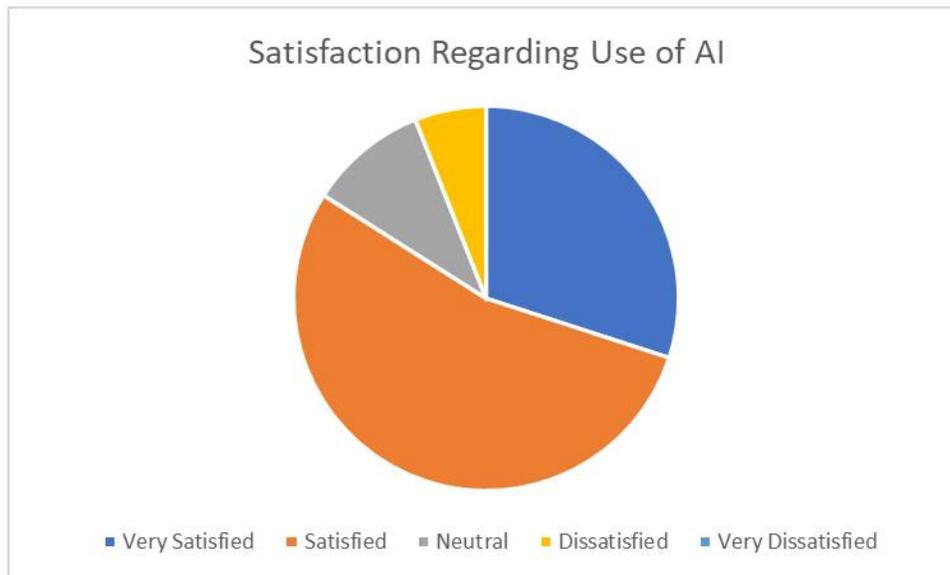


Chart 4: Satisfaction regarding use of AI

Main Concerns About Using AI in Journalism

The main concerns about using AI in journalism mentioned in questionnaire are accuracy, ethical implications, bias in AI, and data privacy. Accuracy and ethical implications are the most frequently mentioned concerns, highlighting the importance of trust and integrity in AI-generated content. Bias in AI is followed by the accuracy issues. Job displacement is also a raising concern to them.

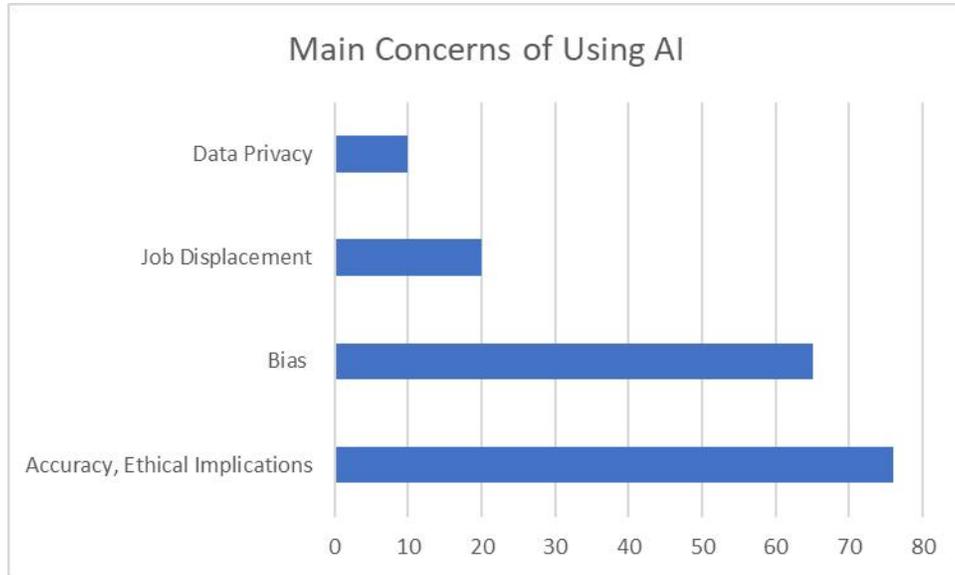


Chart 5: Concerns of Using AI

Opinion on Teaching AI in Journalism Curriculum

There is strong support for teaching AI as part of the journalism curriculum. Most respondents agree that AI should be included in the curriculum, indicating a recognition of the growing importance of AI in the field of journalism.

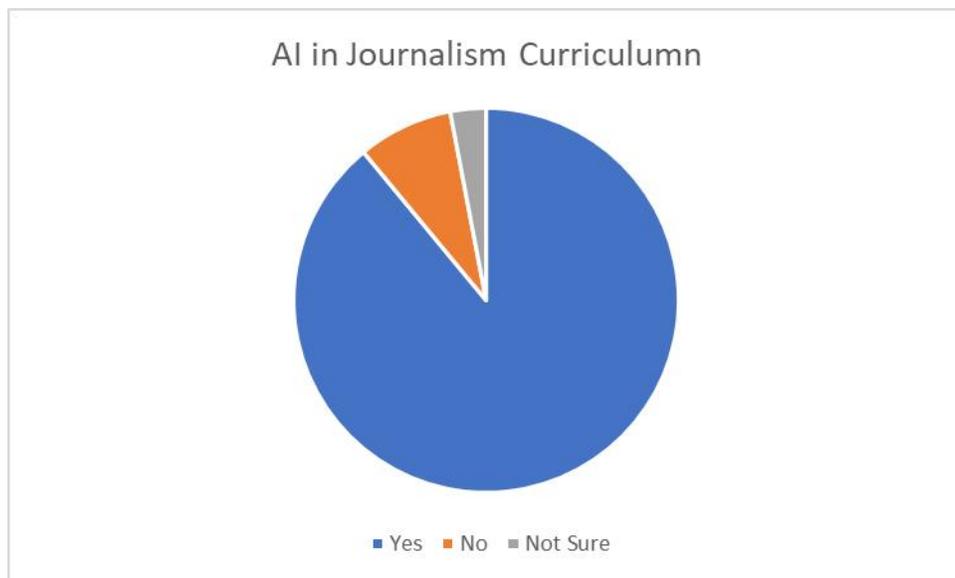


Chart 6: AI in Journalism Curriculum

The questionnaire asked an open-ended question which asks to mention an instance where AI helps students in their studies. The dataset shows how AI tools have significantly helped journalism and mass communication students in their studies. Here is a descriptive analysis based on the responses:

1. Project Assistance and Note Generation:

- Students use AI tools like ChatGPT and Black Box to generate major points for projects and create notes, especially when textbooks are unavailable. AI helps in content creation and idea generation.
- One student uses AI to check and mark mock exam papers.

2. Research Efficiency:

- AI tools like ChatPDF are utilized to summarize large numbers of research papers quickly, aiding in efficient literature review processes.

3. Writing and Editing:

- AI tools automate tasks such as writing thesis and reports, making the process faster.
- Tools like Grammarly improve grammar, style, and clarity, and are also used for organizing thoughts and scripting answers in a desirable format.

4. Concept Understanding:

- AI helps students understand topics in depth and simplifies complex concepts. However, there are concerns about AI's tendency to repeat answers, indicating limited versatility

5. Study and Research Quality:

- AI-powered research assistants help in finding credible sources, summarizing articles, organizing notes, and suggesting research gaps, thus improving the quality of study and research.
- Meta AI on WhatsApp is also mentioned for its frequent utility in studies.

6. AI in Daily Academic Life:

- AI constitutes a helpful framework for structuring and organizing answers, enhancing both daily academic tasks and broader research activities.

7. Caution and Limitations:

- Some students prefer books and research papers over AI, maintaining caution due to AI's limitations in versatility and accuracy.

The study reveals that AI tools are extensively integrated into the academic routines of Journalism 2 and Mass Communication students in Kolkata. A significant portion (66%) of respondents use AI tools daily, with ChatGPT (75%) and Grammarly (68%) being the most frequently used for writing, editing, and idea generation. The primary purpose of using AI tools is to improve writing and editing (82%), followed by research assistance (65%) and fact-checking (57%). Despite high satisfaction with AI-generated content, concerns remain about accuracy, ethical implications, and potential bias. Additionally, there is strong support for incorporating AI into the journalism curriculum. While AI tools are appreciated for their efficiency in project assistance, research, and content creation, some students remain cautious due to limitations in AI's versatility and accuracy, preferring traditional methods like books and research papers.

5. FUTURE SCOPE OF THE STUDY

The integration of AI tools in the academic routines of graduate students of Kolkata based colleges offers a revealing snapshot of the evolving educational landscape. A significant majority of students report daily use of AI tools, demonstrating the increasing reliance on technology to aid in writing, research, and content creation. Popular tools like Grammarly and ChatGPT are instrumental in these tasks, highlighting their role in helping students generate ideas, refine grammar, and enhance overall content quality.

However, this growing dependence on AI underscores several critical issues. The digital divide remains a pervasive problem, affecting the accessibility of these tools. While a significant portion of students benefit from AI technology, those without reliable internet access or adequate digital literacy are left behind. This

disparity exacerbates existing educational inequalities, where technological infrastructure may not be uniformly developed.

Moreover, the survey reveals a notable gap in media literacy among students. Despite frequent use of AI tools, many students' express concerns about the accuracy and ethical implications of AI generated content. This indicates a need for comprehensive education on how to critically evaluate and responsibly use AI in journalism. The ability to discern credible sources and avoid biased or inaccurate information is crucial for future journalists in an era of widespread misinformation.

The concerns raised by students about AI's role in journalism, including issues of accuracy, ethical implications, and bias, underscore the importance of developing a robust framework for AI usage in media. Educators and policymakers must address these issues by fostering an environment of ethical AI use and promoting media literacy.

In conclusion, while AI tools have become indispensable in the academic toolkit of journalism students in Kolkata, significant challenges remain. Addressing the digital divide, enhancing media literacy, and updating the curriculum to include comprehensive AI and research training are essential steps to ensure that all students can benefit equally from technological advancements. By doing so, we can empower the next generation of journalists to navigate the digital landscape with confidence and integrity, ensuring a more informed and equitable media future for West Bengal and beyond.

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